

ABSTRACT

The present invention provides an improved swash plate type variable capacity fluid machine which is fluid-tight, simple in structure, quiet in operation, and highly durable, yet without increasing its size, weight, and the amount of power loss.

The swash plate type variable capacity fluid machine (61) comprises: a cone (3); a disk (5); an enclosure wall (9) whose inner spherical surface surrounds the outer circumference of the disk (5); and a partition plate (7) movably fitted in a groove (17) of the cone (3). The cone (3) and the disk (5) are arranged to confront each other on an abutment line (A), thereby defining a plurality of variable capacity compartments (B, C, D). Supplying/discharging holes (31, 33) are provided to communicate with the variable capacity compartments (B, C, D), supplying and discharging a fluid there from. A synchronous mechanism (29) causes the cone (3) and the disk (5) to rotate about their center axis in synchronization.